

Was the Plague Disease a Motivating or an Inhibiting Factor in the Early Muslim Community?

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----- Summary -----

In spite of the fact that the Muslim community in the period of orthodox caliphs and the Umayyad caliphs was raped by recurrent episodes of plague, this phenomenon was not studied on a large scale and through its comprehensive prospective.

Plague in the early Islamic era was a part of pandemic invaded the Mediterranean region for more than two centuries, but it owned special local characteristics derived from the interaction of the virulence of the disease and the teachings of Islam.

Besides the deaths of important Muslim men by plague, it is suggested that the endemic nature of plague during the early Islamic Empire may have significantly retarded population growth and debilitated Muslim society in Syria and Iraq during the Umayyad Period. Thus, it played an important role in the history of the Islamic Empire.

In addition, these epidemics provoked medical and religious explanations and prescriptions, which strongly influenced the attitudes and behavior of the Muslim community toward the disease.

In our treatise, we tried to conduct a comprehensive study of this phenomenon, trying to pay attention to its diverse sides, and its significant consequences on the Islamic community.

Keywords: Plague of Amwas, Plague in Islam, History of Epidemics in Islam.

Introduction:

According to the Greek historian Procopius, in the summer of 541 AD a deadly infectious disease broke out in the Egyptian port city of Pelusium, located on the eastern edge of the Nile delta. It quickly spread eastward along the coast to Gaza and westward to Alexandria. By the following spring it had found its way to Constantinople, capital of the Roman Empire. Syria, Anatolia, Greece, Italy, Gaul, Iberia, Persia and North Africa: none of the lands bordering the Mediterranean escaped it. And in 542 AD it reached Byzantium in the middle of spring where it happened that Procopius was staying at that time in Constantinople.¹ Actually, the merchant ships and troops carried it throughout the world. About 300,000 people were said to have died in Constantinople alone during the first year. Even the Eastern Roman (Byzantine) emperor Justinian fell ill; though he recovered, his imperial ambitions did not. The mortality and disruption caused by the plague prevented him from recapturing the western provinces and restoring the former extent of the Roman Empire.² This pandemic is widely known as the plague of Justinian.

The disease remained virulent in these lands for slightly more than two centuries, although it never settled anywhere for long. Instead, it came and went. One of the most prominent lands which were stricken by plague was the Arabian world.

Thus, the appearance of epidemics in early Islamic history may be attributed to the cyclical recurrences of plague in the Middle East following the plague of Justinian, beginning in 541 A.D.

There is a cyclical pattern to the reappearances, excepting a long span of time (approximately 30 years) following the plague of Amwas. Syria and Palestine experienced plague epidemics about every ten years from 69/688-689 to 127/744-745, while the epidemics in the garrison's cities of Kufah and Basrah were more frequent.

The question whether this epidemic was caused by *Yersinia pestis*, the causative agent of plague, is a controversial issue. But, the features we can piece together from the written texts suggest that the pathogen was indeed *Y. pestis*: the symptoms, especially the buboes, the timing, the rodent mortality, the apparent correlation with classic modes of seaborne transmission, and the mortality levels all seem to point in the same direction.³ A new study, used Molecular Biology techniques, assured this assumption; in 2004, Drancourt M., Raoult D. and others used multispacer sequence typing (MST) and they successfully genotyped *Yersinia pestis* in individuals suspected to have died from the Justinian plague.⁴ They found that the biovar *Orientalis* (now designated 1.ORI)⁵ of *Yersinia pestis* was the biovar responsible.

First Possible Mention of Plague in the Quran:

There are two candidate locations in Quran that maybe refer to plague:

1- Sura al-fil (chapter of the elephant):

"[105.1] Have you not considered how your Lord dealt with the possessors of the elephant?

*[105.2] Did He not cause their war to end in confusion,
[105.3] And send down (to prey) upon them birds in flocks,
[105.4] Casting against them stones of baked clay,
[105.5] So, He rendered them like straw eaten up?"⁶*

The Sura relates the attack against Mecca by Abrahah, the Christian viceroy in the Yemen province of the king of Ethiopia, and the destruction of his army.

The interpretation of the birds casting the army with stones of "baked clay" is problematic. The date of the expedition is known as the year of the elephant, which is commonly identified with the date of the Prophet Muhammad's birth, 570 A.D.

M. Dols thought that such a date and location for a plague outbreak are entirely possible because plague is considered to have originally come from Ethiopia and may, therefore, have been carried to Arabia by Ethiopian army.⁷ W. Montgomery Watt thought that Western Arabia, especially the high plateau of Asir, has long been considered an endemic focus of plague. This isolated focus may have been established during the recurrences of plague following the plague of Justinian.⁸

Furthermore, there were plague epidemics in the Mediterranean region at the same time. However, the later Muslim authors never mentioned or discussed this important event in relation to a clearly determined instance of plague.

2- Sura al-Bakarah (chapter of the cow):

"[2.243] Have you not considered those who went forth from their homes, for fear of death, and they were thousands, then Allah said to them, Die; again He gave them life; most surely Allah is Gracious to people, but most people are not grateful."⁹

The old explainers of Quran, like ibn Kathir, thought that those people were Jews, living in Dawerdan, an old village in Waset in Iraq. They left their homes because they thought this might save them from the plague which had struck their village. When they reached their destination, the God ordered them to die. Then, after some days, the God revive them. This story explains that people can't escape the decree of God, and it considers plague as a divine punishment.¹⁰

Chronology of Plagues:

Those earliest Arabic testimonies concerning plague have not come to us directly from the seventh century. Later scholars, like ibn Hajar al-Askalani, refashioned them and incorporated them into larger, more systematic works.

A doubt remains whether all of the epidemics which have been enumerated were actually plague, because the precise symptoms of plague are not fully described in the early period.

The later chroniclers quoted al-Mada'ini that the number of the great and famous plagues in Islam were five (before the Black Death which was considered the sixth), but other historians added more attacks. Ibn Hajar mentioned about sixteen

plagues until the end of the reign of Umayyad dynasty.¹¹ In general, we can consider eight great episodes of plague until the beginning of the Abbasid's reign.

1- Plague of Shirawayh:

This plague is considered the first plague epidemic in the Muslim era. It occurred in 6AH/ 627-628 AD at Ctesiphon (al-Mada'in), the capital city in Persia, during the life of the prophet Muhammad. Its name is derived from the Sassanian king of Persia, Siroes, who died of plague in 7AH/629AD.¹² Al-Tabari mentioned that so many Persians died during this epidemic.¹³ There isn't any record assures the presence of some victims among the Muslims. Anyway, written Arabic was still very rare in the sixth century. Moreover, the Arabian Peninsula itself seems to have escaped this plague pandemic.

2- Plague of Amwas:

It severely struck the Arab army at Amwas in Muharram and Safar/January and February 17AH/638AD and again in 18AH/639AD. Jacob of Edessa (died 708AD) records a severe pestilence that broke out in all the regions of Syria in 18 AH/639 AD, which coincides with the plague of Amwas in the Arabic sources, and that one was certainly bubonic plague.¹⁴ Amwas, which is a small village located in Palestine between Jerusalem and al-Ramlah, was severely affected.



The village of Amwas in the 20th century. Abu Ubaydah's shrine is located in front

The historical accounts of the plague of Amwas state that about 25000 Muslim soldiers died. Among the companions of the Prophet who died in plague were Abu Ubaydah, Yazid ibn abi Sufyan, Muadh ibn Jabal and his son, Shurahbil ibn Hasanah,

al-Fadl ibn al-Abbas, Abu Malik al-Ashari, al-Hareth ibn Hisham, Abu Jandal, Uwais al-Korani and Suhayl ibn Amr.¹⁵ Al-Tabari said that plague was so severe to the extent that the enemy looked forward to conquest the Muslims and the panic spread through Muslims' hearts.¹⁶

The plague epidemic had been preceded by a severe famine, which was called the year of "al-Ramadah", in Syria and Palestine which may have predisposed the population to the disease. This predisposition is due to lowered human resistance and the attraction of the plague-infected rats to the food reserves in human settlements and as a result rats, the reservoirs of *Yersinia pestis bacillus*, became into a closer contact with men. The disease then spread very rapidly through most of Syria, which had only recently been devastated by famine, before it spread to Iraq and Egypt.¹⁷

Therefore, Omar decided to travel to Syria to personally examine the situation. When he reached the town of Sargh, he heard that plague had spread in Syria-Palestine and killed so many people. Therefore, he called a council of the Muhajirun (the people of Mecca) and Ansar (the people of Medina) for discussion.¹⁸ After a lot of debate, Omar decided to move the people, who accompanied him, back to Medina, and when Abu Ubaydah protested that they were fleeing the decree of the God, the Caliph Omar argued that they were fleeing the decree of the God to the decree of the God. He meant that the man must do his best to avoid the disease and whether he would be infected or not, that's the decree of the God.¹⁹

Later, during the second attack, the caliph Omar summoned Abu Ubaydah, the military commander in Syria, from Amwas to Medina to prevent his death from the plague epidemic. Abu Ubaydah realized the caliph's intention and refused, preferring to stay with his army in Syria. Therefore, Omar ordered Abu Ubaydah to move the army out of the infected area in Jordan to a new safer and higher area "al-Jabiah" in Hauran. But before leaving, Abu Ubaydah himself succumbed to the disease.²⁰

These events surrounding the plague of Amwas are very significant because they demonstrated contemporary Muslim attitudes and directly affected later religious and legal interpretations of plague.

3- Plague of Kufah:

The plague struck next in Kufah in 49A.H/669AD during the reign of the Umayyad caliph Muawiyah. His governor, al-Mughirah ibn Shubah is reported to have fled from this epidemic. When the epidemic had subsided, he returned to Kufah and died of plague in 50/670.²¹ This plague coincided by the arrival of Arabs to the Asian shore of the Bosphorous for the first time in 48AH/668AD, but the cold winter, their lack of warm clothing and provisions, dysentery and plague soon decimated their camp.²²

4- Plague of al-Jarif (the violent plague):

It was named because it swept through Basrah in southern Iraq like a flood about the year 69-70/688-689. John bar Penkaye described it but he thought that it affected northern Iraq in 67/687.²³ In Shawwal 69/April 689, the plague epidemic was

so severe that in three successive days 70000, 71000, and 73000 died in the city; most men died on the morning of the fourth day after being infected. Ibn Khatima mentioned that Anas ibn Malek lost 83 of his offspring.²⁴ There was a considerable difficulty in burying the dead; and to prevent looting and the entrance of predatory animals. For example, the mother of Obaid El-lah, the governor of Basrah, died and there was a great difficulty in burying her.²⁵ They even lock up the houses where all the inhabitants had died. There is confusion of dates and places for this plague epidemic. The confusion may be due to its repeated appearance in a number of adjacent regions within a short period. John bar Penkaye says that "there had been nothing like it, and I hope that there will be nothing like it again".²⁶ John bar Penkaye said that during the plague of 67AH/686–687 in upper Iraq, the survivors scattered like sheep over the mountains to escape it only to be followed and robbed by looters.²⁷

5- The plague of al-Fatayat (Maidens):

It struck Basrah, Kufah, Waset and Damascus in 87AH/706AD. It was called this because most of those who died were young women and maids, according to ibn Hajar's explanation.²⁸ The excessive mortality on this occasion suggests that this was also bubonic plague.²⁹

6- The plague of al-Ashraf (the Notables):

It was named so because there were so many deaths among the high class men. It struck Iraq and Syria in 97/716 during the oppression of al-Hajjaj, the famous Umayyad governor of Iraq. In Syria, the crown prince, Sulaiman ibn Abd al-Malik, died in this epidemic.³⁰

7- The plague of 125AH/743-744AD:

It occurred in the same year that the caliph Hisham died. Dionysius Stathokouplous, in his Chronicle of Tel Mahre, the Syrian Orthodox Patriarch (815–845), also said that the caliph, Yazid III, died of a tumor that erupted on his head in 125AH/743–744 AD. The plague occurred in the territory stretching from the Euphrates to the West, the cities of Palestine, the North and South as far as the Red Sea, and in Cilicia, Iconia, Asia, Bithynia, Lusonia (probably Moesia), Galatia, and Cappadocia.³¹

This outbreak of bubonic plague accompanied by famine in 743–744 described in the Zuqnin Chronicle serves to illustrate the process. During the winter of 743–744 people were first stricken by the disease of the sore or "swelling" and abscess, and most of the heads of households died, but, because it was winter, the dead could not be buried. People were discarded in streets, porches, towers, shrines, and all the houses, suffering both from the severe disease and the harsh famine. Those who had food suffered from the disease more than anyone else, obviously due to the attraction of infected rats to the food. When it began to warm up, bubonic plague was discovered in those who were ill. They began to collapse in the street, and there was no one to bury them.³²

During the plague of 743–744, Dionysius of Tel Mahre says that 100,000 people died in Mesopotamia alone, while 20,000 died each day for a month at Bosrah and in the Hawran.³³ Many large, wealthy families and many tribes were left without a single heir, so that the possessions, fields, and houses of the wealthy were inherited by their friends.³⁴

8- The Plague of Salam:

It spread in Basrah in 131 AH/750 AD and in Damascus in 135/754. It was severe in Ramadan. The deaths' rate was about 1000 daily.³⁵ About 70000 people died in the first day and more than 70000 died in the second day.³⁶

According to Conrad and Dols, the first pandemic of bubonic plague ended in 749 AD and the disease disappeared. Michael G. Morony thinks that it is also possible that the plague bacillus affected its victims in non-bubonic forms such as the pneumonic plague and the meningeal plague after the middle of eighth century³⁷, but it seems too far possibility.

Religious Explanations for Plague:

Actually, plague disease was a major concern during the medieval ages in Islamic world. Prophet Muhammad dedicated many Hadiths (sayings) to discuss plague. Most of the Hadith books, which collected and classified most of the Hadiths, contain a special chapter or more related to plague. For example, al-Bukhari dedicated two chapters in the book of Medicine for plague.³⁸ Moreover, Muslim writers composed, in Arabic, more than 35 specified treatises and books about plague. Most of them approached the subject through religious point of view.

Three religious principles, which were derived from the teachings of the Prophet Muhammad "al-Hadith", influenced the early Muslim community and set the framework for communal behavior when they confronted the disease:

- 1- Plague was considered a mercy and martyrdom from God for the faithful Muslim and a punishment for the infidel.³⁹
- 2- A Muslim should neither enter nor flee a plague-stricken land.⁴⁰
- 3- There was no contagion of plague because disease came directly from God.⁴¹

These three religious roles provoked sustained controversy due to the reappearances of plague epidemics. This controversy persisted for a long period. Most Islamic jurists and many physicians entirely denied the contagion.

But, some physicians, like Lisan al-Din ibn al-Khatib doubted the literal explanation of the Hadith "No Contagion". He considered that the Prophet meant that plague isn't contagion just by its nature, as the people of pre-Islam was thinking, but by the decree of God. He also reclaimed that although the Prophet had denied the pre-Islamic beliefs in contagion, it's obvious that the pragmatic intention of the prohibition against flight may have initially been to prevent the spread of contagious diseases. He affirmed the presence of contagion on the basis of the experience,

induction, observation and the recurrent news.⁴² Such a physician faced a massive opposition because he dared to challenge the prevailing trend in the community.

Moreover, some people escaped the infected cities and lands to safer places. This was considered by jurists like the escape of the attacking enemy, while others considered it the only means to avoid infection.

Seeking for the Medical Knowledge:

In one Hadith narrated by Aisha, his wife, the Prophet was asked about plague; he answered and described it by saying: "The Plague is a gland, like the gland of the camel, arises in the soft tissues of the abdomen and the armpits".⁴³ This description corresponds with the bubonic plague. Therefore, we can assume that plague was widely unknown by Arabs before Islam because they asked about what is plague, and after Islam they differentiate between plague and any other epidemic. This gives greater weight to the hypothesis which claims that most, if not all, of the plagues that stroked the Muslim communities were really plague disease, and that Muslims, since the beginning of Islam, differentiated between plague and other epidemics.

The plague recurrences and the large amount of mortality which he caused evoked a medical interest in the disease which resulted in the investigation and discussion of pre-Islamic medical works, especially the writings of Hippocrates and Galen, as well as in personal observation. In this manner, M. Dols thought that the massive translation of classical medical works into Arabic in early Islam should be considered as a part of the endeavor to understand the nature of recurrent disease and not as a purely academic exercise.⁴⁴ Thus, the process of translation which began in the Umayyad period and flourished in the Abbasid period was a real search for solutions to the diverse problems, included plague, which faced the Muslim community, and was not a pure and romantic academic work.

These efforts furnished the later medieval writers not only with religious and legal precedents, but also with an etiological explanation of plague, methods of prevention and treatment and a precise Arabic terminology.⁴⁵

The Political Consequences of Plague:

It's generally accepted nowadays that the plague effectively affected the movement of history especially in the ancient and medieval ages. This effect of Justinian plague and its recurrent epidemics could be noticed through different examples.

1- One major question concerning military matters is how to evaluate the role of plague mortality among the various factors that contributed to the weakness of the Byzantine army in the face of the Arab advances.

Archaeological evidences founded that the expansion of settlements that had characterized much of rural and urban Syria in the fifth and early sixth centuries, during the byzantine era, came to an abrupt end after the middle of the sixth century,

and that is entirely consistent with a pandemic that caused massive loss of life on repeated occasions.⁴⁶

A large migration of Arabs into Syria was similarly facilitated by the high plague mortality in that land.⁴⁷ Moreover, the lesser losses of plague among Arabs made them potentially dangerous to the Byzantine Empire even before their unification in Islam.⁴⁸

Prof. Josiah Russell estimates that the initial plague epidemic of 541-544 reduced the European-Mediterranean population by 20-25% and there was a total decline of about 50-60% from the pre-plague population in the period 541-700 AD.⁴⁹ This would contribute to the general weakness in the Byzantine Empire and facilitated the conquest of Syria, Palestine, Egypt and the southern Turkey by Arabs.

2- In contrast to the relative recovery in European-Mediterranean population during the period 650-750 A.D from its previous level, Russell has proposed the gradual and steady decline of population in the Islamic world. This was partially responsible for the survival of the Byzantine Empire, and the seeking for truces between Arabs and Byzantine. The historians mentioned the cease of jihad during the episodes of plague. For instance, al-Tabari recorded a similar event during the plague of 79A.H when so many Syrians died because of it.⁵⁰

Because Arabs encountered plague only outside of their homeland, this was at least at first mainly a problem for their armies. Moreover, the Arab commanders would remove their troops from their garrisons to the mountains or the desert until the epidemic ceased. All of this contributed to the relative weakness in Arabic military forces during the plague epidemics.

3- The plague was an important factor in the decline of the Umayyad reign and the appearance of Abbasids for the following reasons:

The Umayyad dynasty was literally plagued by this disease. Muawiyah II died from plague in 64/683, only a few months after his reign began.⁵¹ Some informants claimed that the caliph Marwan died of plague. Plague struck others among the governing elite, such as Ziyad ibn Abi Sufyan, who died in Kufah in 52/673. For this reason, when the plague season came during the summer, the Umayyad caliphs tend to leave the cities for their desert palaces and dwelt close to the Bedouins. Therefore, they were for a considerable time far away from the capital and the headquarters of the country. For instance, Caliph Hisham ibn Abdul-Malik (105-125/724-743) moved from Damascus to al-Rasafah.⁵² Dionysius also says that the caliph, Yazid III, died of a tumor that erupted on his head in 743-744 CE. This partially explains why the power of Umayyad Caliphs was debilitating year after year.

The chroniclers report that plague lightened with the advent of the Abbasid regime. Al-Thaalibi said that "when the Abbasids came to power, there were no more plagues until the reign of al-Muqtadir (295-320/908-932). There is a famous anecdote about an Abbasid commander, who came to Damascus, the former capital of the Umayyads, to make speeches on behalf of the new dynasty. The Amir told the

inhabitants of Damascus that they should praise God, who had raised plague from them since the Abbasids had come to power. One courageous man in the crowd stood up and replied: "God is more just than to give you power over us and the plague at the same time".⁵³ Obviously, plague was spun into political propaganda by Abbasids. After a lengthy and all-out war against Umayyad rule resulted in a complete Abbasid victory in 750 AD, the new regime's leaders claimed that God put an end to the plague pandemic because of their overthrow of the Umayyads.⁵⁴

Plague was more active in Syria-Palestine and Iraq than in Egypt and Persia. The recurrences of plague may have thus continuously retarded natural population growth and served as a major factor in debilitating Umayyad strength. The constant infusion of Arab population into the formerly Sassanian region of the Empire during the Umayyad Period and its apparent exemption from plague epidemics (outside of Iraq) would suggest an unbalanced growth of population in the empire which was reflected in the predominance of the Abbasid regime, with respect to fact that the missionary activities of Abbasids concentrated in formerly Persian territories at first.

4- Plague had facilitated the conquest of Spain by Arabs. An Arabic source, the Akhbar Majmu'a, records that plague and famine destroyed half the population of Spain between 707 and 709, just two years before the Arab conquest of 711.⁵⁵

5- The trials of the Umayyads to conquest Constantinople failed. Plague played an important role in both the first trial in 48AH/668AD, and the second trial, when Maslamah besieged the important city in 98/717 with no success, after the spread of plague among Arab troops.⁵⁶

Conclusion:

The epidemics of Plague in the early Islamic world were part of a pandemic, Justinian plague, but they owned special local characteristics derived from its periodic nature and the teachings of Islam. The plague stimulated the efforts which searched for a medical cure and motivated the Muslim religious scholars to reach an acceptable interpretation of the meaning of this periodic scourge. In addition, the religious-legal principles related to plague which were derived, sometimes incorrectly, from the Hadith literature established a system of theological beliefs and influenced the thinking of the early Muslim community and continued to be operative in Muslim religious life until the twentieth century, and at last it set limits to the intellectual discussion and to the communal behavior.

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- ²⁶ Michael G. Morony. *For Whom Does the Writer Write?*, page 77
- ²⁷ Michael G. Morony. *For Whom Does the Writer Write?*, page 79
- ²⁸ Ibn Hajar al-Askalani. *Badhel al-Maaon*, page 363.
- ²⁹ Michael G. Morony. *For Whom Does the Writer Write?*, page 66
- ³⁰ Ibn Hajar al-Askalani. *Badhel al-Maaon*, page 363.
- ³¹ Michael G. Morony. *For Whom Does the Writer Write?*, page 66
- ³² Michael G. Morony. *For Whom Does the Writer Write?*, page 71
- ³³ Michael G. Morony. *For Whom Does the Writer Write?*, page 73
- ³⁴ Michael G. Morony. *For Whom Does the Writer Write?*, page 80
- ³⁵ Ibn Hajar al-Askalani. *Badhel al-Maaon*, page 363.
- ³⁶ Ibn Khatimah. *Tahseel Garad al-Kased*, Manuscript of al-Omoumeyah Library, n. 854, page 35 face.
- ³⁷ Michael G. Morony. *For Whom Does the Writer Write?*, page 71
- ³⁸ Al-Bukhari Muhammad ibn Ismael. *Sahih al-Bukhari*. Al-Muneeria Library, Cairo, Egypt, 1348 AH.
- ³⁹ Al-Bukhari Muhammad ibn Ismael. *Sahih al-Bukhari*. Hadith n. 5400 and 5402.
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- ⁴¹ Al-Bukhari Muhammad ibn Ismael. *Sahih al-Bukhari*. Hadith n. 5380.
- ⁴² Muller MJ. *Ibnul-khatibs Bericht Uber Die Pest*. Muller, M. J.: *Ibnul-khatibs Bericht uber die Pest*. *Sitzungsber. konigl. bayer. Akad. Wissensch.* 4:1-34, 1863, page 7.
- ⁴³ Ibn Khatimah. *Tahseel Garad al-Kased*, page 31 back.
- ⁴⁴ M.W. Dols. *Plague in Early Islamic History*, page 382.
- ⁴⁵ M.W. Dols. *Plague in Early Islamic History*, page 382.
- ⁴⁶ Hugh N. Kennedy. *Justinianic Plague in Syria and the Archaeological Evidence*. In *Plague and the End of Antiquity, The Pandemic of 541–750*. Edited by Lester K. Little. Cambridge University Press 2007, UK. Page 95
- ⁴⁷ Lester K. Little. *Life and Afterlife of the First Plague Pandemic*. In *Plague and the End of Antiquity, The Pandemic of 541–750*. Edited by Lester K. Little. Cambridge University Press 2007, UK. Page 66
- ⁴⁸ M.W. Dols. *Plague in Early Islamic History*, page 372.
- ⁴⁹ M.W. Dols. *Plague in Early Islamic History*, page 372.
- ⁵⁰ Muhammad al-Tabari. *Tarikh al-Omam wal-Muluk*, page 136.
- ⁵¹ Ali ibn Husain al-Masudi. *Les Prairies d'Or*. Translation by C.B. de Meynard (Paris, 1869), vol. 5, p.170
- ⁵² Ibn Hajar al-Askalani. *Badhel al-Maaon*, page 363.
- ⁵³ Ibn Hajar al-Askalani. *Badhel al-Maaon*, page 364.
- ⁵⁴ Lester K. Little. *Life and Afterlife of the First Plague Pandemic*, page 66
- ⁵⁵ Michael Kulikowski. *Plague in Spanish Late Antiquity*. In *Plague and the End of Antiquity, The Pandemic of 541–750*. Edited by Lester K. Little. Cambridge University Press 2007, UK. Page 154
- ⁵⁶ M.W. Dols. *Plague in Early Islamic History*, page 376.